

Serial Number 10/668,267

Attorney Docket: 2147-002

In the CLAIMS

Please replace the claims currently on file with the following claims:

Claims 1 - 13. Withdrawn

14. (Currently amended) A valve for enhancing the production of gas from a tubing string extending down a wellbore to a reservoir having diminished pressure, the wellbore having an annulus isolated annulus from the reservoir charged with a continuous flow of high pressure gas and a plunger lift system, the valve comprising:

a tubular housing having a bore, the housing being connected to the tubing string and having

an upper production port fluidly connected to the tubing string above the valve,

a lower production port fluidly connected to the reservoir below the valve, and

an unloading port fluidly connecting the isolated annulus to the tubing string above the valve; and

a valve stem having an uphole and a downhole piston, housed within the valve housing and axially moveable therein between

a first uphole production position wherein the uphole piston blocks the unloading port, the upper and lower production ports are fluidly connected and the downhole piston opens the reservoir to the lower production port for producing gas therethrough, and

a second downhole lift position wherein the downhole piston blocks the reservoir from the lower production port and the uphole piston opens the unloading port to permit the charge of high pressure gas in the annulus to pass into the tubing string, for enhancing the production of gas in the tubing string above the unloading port.

15. (original) The valve as described in claim 14 wherein the valve stem is actuated to the lift position by impact from a plunger having fallen down the tubing string.

16. (original) The valve as described in claim 15 wherein the valve stem is actuated to the production position by a differential pressure between the reservoir and the annulus.

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17. (original) The valve as described in claim 16 further comprising a sleeve sealingly positioned about the housing so as to form an annular bypass chamber for fluidly connecting the upper and lower production ports.

18. (original) The valve as described in claim 17 further comprising a valve body housed within the bore of the tubular housing so as to support the valve stem, the valve body having a port co-operating with the unloading port for fluidly connecting the isolated annulus to the tubing string above the valve.

19. (original) The valve as described in claim 18 further comprising a high pressure poppet valve housed within a bore of the valve body so as to utilize annulus pressure to assist in axial shifting of the valve stem.

20. (original) The valve as described in claim 19 further comprising a plunger landing assembly for the valve stem so as to absorb excess downward force from the plunger and transfer sufficient downward force to the valve stem to shift it to the downhole lift position.

21. (original) The valve as described in claim 20 wherein the valve body further comprises a latching mechanism to secure the valve body into the valve housing.

22. (original) The valve as described in claim 21 wherein the valve further comprises a fish neck on the valve body and the valve stem so as to permit the valve body and valve stem to be run in and retrieved by wireline.

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